

CLAIMS

What is claimed is:

1. A system for countering an airborne threat to an aircraft, comprising:
at least one aircraft having an airborne countermeasures system (ACS) capable of controlling deployment of countermeasures located on said aircraft; and
a central countermeasures management system (CCMS) capable of communicating with said ACS to control said ACS in deployment of said countermeasures located on said aircraft.
2. The system of claim 1, wherein said aircraft is one of a series of aircrafts, each aircraft of said series of aircrafts having a separate ACS thereon, wherein each separate ACS is capable of controlling deployment of countermeasures located on an aircraft within said series of aircrafts on which the separate ACS is located, and wherein said CCMS is capable of communicating with each separate ACS in response to said airborne threat, to control deployment of said countermeasures.
3. The system of claim 2, further comprising a local countermeasure deployment device having countermeasures located therein, wherein said CCMS is also capable of communicating with said local countermeasure deployment device to control deployment of said countermeasures by said local countermeasure deployment device.
4. The system of claim 2, wherein said airborne threat comprises multiple missiles.
5. The system of claim 2, wherein said CCMS communicates with each separate ACS via a high speed, high bandwidth, communication link.
6. The system of claim 2, wherein said CCMS has a storage device therein having a description of countermeasures presently available by each aircraft within said series of aircrafts that has communicated with said CCMS.

7. A method of countering an airborne threat to an aircraft, comprising the steps of:

receiving threat information about said airborne threat from a remote source;

receiving source information about said remote source;

determining a type of airborne threat from said received threat information and said received source information;

selecting a countermeasure that is presently available by said remote source, wherein said countermeasure is capable of deterring said airborne threat from inflicting damage to said aircraft; and

instructing said remote source to deploy said selected countermeasure that is presently available.

8. The method of claim 7, further comprising the steps of:

receiving additional information about said airborne threat from multiple sources; and

combining and comparing said received information about said airborne threat and said additional information about said airborne threat resulting in fused information.

9. The method of claim 8, wherein said fused information contains a determination as to whether said airborne threat is a single threat or multiple threats.

10. The method of claim 7, wherein said information about said airborne threat is selected from the group consisting of plume intensity and location of the airborne threat.

11. The method of claim 7, wherein said source information about said remote source is selected from the group consisting of roll, horizontal elevation, azimuth northing, and time.

12. The method of claim 7, further comprising the step of determining a confidence level that the type of airborne threat determined from said received threat information and said received source information is an actual threat.

13. The method of claim 7, further comprising the step of notifying authorities of said airborne threat.

14. The method of claim 13, further comprising the step of prioritizing countering of each of said threats.

15. The method of claim 8, further comprising the step of selecting one of said multiple sources to deploy said selected countermeasure that is presently selected.

16. The method of claim 8, further comprising the steps of:
selecting more than one of said multiple sources to deploy said selected countermeasure that is presently selected in accordance with a calculated sequence so as to prevent interference between said countermeasures; and
instructing said more than one of said multiple sources to deploy said selected countermeasure that is presently available, in accordance with said calculated sequence.

17. A method of countering an airborne threat to an aircraft, comprising the steps of:

determining threat information about said airborne threat;
transmitting said threat information to a remote device;
transmitting source information to said remote device;
receiving instructions to deploy a countermeasure selected by said remote device, as a result of said steps of determining threat information, transmitting said threat information, and transmitting said source information, wherein said selected countermeasure is presently available; and
deploying said selected countermeasure,

wherein said threat information and said source information is collectively referred to as a track file.

18. The method of claim 17, further comprising the steps of:
 - said steps of determining said threat information, transmitting said threat information, and transmitting said source information being performed by multiple sources, resulting in the transmission of multiple track files;
 - at least two of said multiple sources receiving instructions to deploy selected countermeasure in accordance with a calculated sequence so as to prevent interference between said countermeasures; and
 - deploying said selected countermeasures in accordance with said calculated sequence.
19. The method of claim 17, wherein said threat information about said airborne threat is selected from the group consisting of plume intensity and location of the airborne threat.
20. The method of claim 17, wherein said source information is selected from the group consisting of roll, horizontal elevation, azimuth northing, and time.